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PCT

REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

PCT/US 03/23306

For receiving Office use only

**PCT/US 03/23306**

International Application No.

(23.07.03)

International Filing Date

23 JUL 2003

Name of receiving Office and "PCT Information Application"

Applicant's or agent's file reference  
(if desired) (12 characters maximum)

LUD-5739-PCT

**PCT INTERNATIONAL  
APPLICATION RO/US**

**Box No. I TITLE OF INVENTION**

**ISOLATED, SSX-2 AND SSX-2 RELATED PEPTIDES USEFUL AS HLA BINDERS AND CTL EPITOPES, AND USES THEREOF**

**Box No. II APPLICANT**

This person is also inventor

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

LUDWIG INSTITUTE FOR CANCER RESEARCH  
605 THIRD AVENUE  
NEW YORK, NEW YORK 10158  
U.S.A.

Telephone No.  
**(212) 450-1500**

Facsimile No.  
**(212) 450-1555**

Teleprinter No.

Applicant's registration No. with the Office

State (that is, country) of nationality:  
CH

State (that is, country) of residence:  
US

This person is applicant  all designated  all designated States except  the United States  the States indicated in for the purposes of: States the United States of America of America only  the Supplemental Box

**Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)**

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

applicant only

applicant and inventor

inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (i.e. country) of nationality: US

State (i.e. country) of residence: US

This person is applicant  all designated  all designated States except  the United States  the States indicated in for the purposes of: States the United States of America of America only  the Supplemental Box

Further applicants and/or (further) inventors are indicated on a continuation sheet.

**Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

agent

common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Telephone No.  
**(212) 318-3168**

HANSON, NORMAN D.  
FULBRIGHT & JAWORSKI L.L.P.  
666 FIFTH AVENUE  
NEW YORK, NEW YORK  
U.S.A. ▲ 10103

Facsimile No.  
**(212) 318-3400**

Teleprinter No.

Agent's registration No. with the Office  
**30,946**

Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)***If none of the following sub-boxes is used, this sheet should not be included in the request.*

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**VALMORI, DANILA**  
Rue de l'Industrie, 5  
CH-1005 LAUSANNE, SWITZERLAND

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:  
ITState (that is, country) of residence:  
CHThis person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**AYYOUB, MAHA**  
600 Columbus Ave., Apt. 13A  
New York, New York 10024  
U.S.A.

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:  
JOState (that is, country) of residence:  
USThis person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

**PINILLA, CLEMENCIA**  
1656 Freda Ln.  
Cardiff by the Sea, CA 92007  
U.S.A.

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:  
USState (that is, country) of residence:  
USThis person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

This person is:

 applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.)

Applicant's registration No. with the Office

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:  all designated States  all designated States except the United States of America  the United States of America only  the States indicated in the Supplemental Box Further applicants and/or (further) inventors are indicated on another continuation sheet.

**Box No. V DESIGNATION OF STATES** *Mark the applicable check-boxes; at least one must be marked.*

The following designations are hereby made under Rule 4.9(a):

**Regional Patent**

- AP **ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT .....
- EA **Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT .....
- EP **European Patent:** AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, HU Hungary, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, RO Romania, SE Sweden, SI Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT .....
- OA **OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT .....

**National Patent (if other kind of protection or treatment desired, specify on dotted line):**

<input checked="" type="checkbox"/> AE United Arab Emirates .....	<input checked="" type="checkbox"/> HR Croatia .....	<input checked="" type="checkbox"/> OM Oman .....
<input checked="" type="checkbox"/> AG Antigua and Barbuda .....	<input checked="" type="checkbox"/> HU Hungary .....	<input checked="" type="checkbox"/> PG Papua New Guinea .....
<input checked="" type="checkbox"/> AL Albania .....	<input checked="" type="checkbox"/> ID Indonesia .....	<input checked="" type="checkbox"/> PH Philippines .....
<input checked="" type="checkbox"/> AM Armenia .....	<input checked="" type="checkbox"/> IL Israel .....	<input checked="" type="checkbox"/> PL Poland .....
<input checked="" type="checkbox"/> AT Austria .....	<input checked="" type="checkbox"/> IN India .....	<input checked="" type="checkbox"/> PT Portugal .....
<input checked="" type="checkbox"/> AU Australia .....	<input checked="" type="checkbox"/> IS Iceland .....	<input checked="" type="checkbox"/> RO Romania .....
<input checked="" type="checkbox"/> AZ Azerbaijan .....	<input checked="" type="checkbox"/> JP Japan .....	<input checked="" type="checkbox"/> RU Russian Federation .....
<input checked="" type="checkbox"/> BA Bosnia and Herzegovina .....	<input checked="" type="checkbox"/> KE Kenya .....	
<input checked="" type="checkbox"/> BB Barbados .....	<input checked="" type="checkbox"/> KG Kyrgyzstan .....	<input checked="" type="checkbox"/> SC Seychelles .....
<input checked="" type="checkbox"/> BG Bulgaria .....	<input checked="" type="checkbox"/> KP Democratic People's Republic of Korea .....	<input checked="" type="checkbox"/> SD Sudan .....
<input checked="" type="checkbox"/> BR Brazil .....		<input checked="" type="checkbox"/> SE Sweden .....
<input checked="" type="checkbox"/> BY Belarus .....	<input checked="" type="checkbox"/> KR Republic of Korea .....	<input checked="" type="checkbox"/> SG Singapore .....
<input checked="" type="checkbox"/> BZ Belize .....	<input checked="" type="checkbox"/> KZ Kazakhstan .....	<input checked="" type="checkbox"/> SK Slovakia .....
<input checked="" type="checkbox"/> CA Canada .....	<input checked="" type="checkbox"/> LC Saint Lucia .....	<input checked="" type="checkbox"/> SL Sierra Leone .....
<input checked="" type="checkbox"/> CH & LI Switzerland and Liechtenstein .....	<input checked="" type="checkbox"/> LK Sri Lanka .....	<input checked="" type="checkbox"/> SY Syrian Arab Republic .....
<input checked="" type="checkbox"/> CN China .....	<input checked="" type="checkbox"/> LR Liberia .....	<input checked="" type="checkbox"/> TJ Tajikistan .....
<input checked="" type="checkbox"/> CO Colombia .....	<input checked="" type="checkbox"/> LS Lesotho .....	<input checked="" type="checkbox"/> TM Turkmenistan .....
<input checked="" type="checkbox"/> CR Costa Rica .....	<input checked="" type="checkbox"/> LT Lithuania .....	<input checked="" type="checkbox"/> TN Tunisia .....
<input checked="" type="checkbox"/> CU Cuba .....	<input checked="" type="checkbox"/> LU Luxembourg .....	<input checked="" type="checkbox"/> TR Turkey .....
<input checked="" type="checkbox"/> CZ Czech Republic .....	<input checked="" type="checkbox"/> LV Latvia .....	<input checked="" type="checkbox"/> TT Trinidad and Tobago .....
<input checked="" type="checkbox"/> DE Germany .....	<input checked="" type="checkbox"/> MA Morocco .....	
<input checked="" type="checkbox"/> DK Denmark .....	<input checked="" type="checkbox"/> MD Republic of Moldova .....	<input checked="" type="checkbox"/> TZ United Republic of Tanzania .....
<input checked="" type="checkbox"/> DM Dominica .....		<input checked="" type="checkbox"/> UA Ukraine .....
<input checked="" type="checkbox"/> DZ Algeria .....	<input checked="" type="checkbox"/> MG Madagascar .....	<input checked="" type="checkbox"/> UG Uganda .....
<input checked="" type="checkbox"/> EC Ecuador .....	<input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia .....	<input checked="" type="checkbox"/> US United States of America .....
<input checked="" type="checkbox"/> EE Estonia .....		
<input checked="" type="checkbox"/> ES Spain .....	<input checked="" type="checkbox"/> MN Mongolia .....	<input checked="" type="checkbox"/> UZ Uzbekistan .....
<input checked="" type="checkbox"/> FI Finland .....	<input checked="" type="checkbox"/> MW Malawi .....	<input checked="" type="checkbox"/> VC Saint Vincent and the Grenadines .....
<input checked="" type="checkbox"/> GB United Kingdom .....	<input checked="" type="checkbox"/> MX Mexico .....	<input checked="" type="checkbox"/> VN Viet Nam .....
<input checked="" type="checkbox"/> GD Grenada .....	<input checked="" type="checkbox"/> MZ Mozambique .....	<input checked="" type="checkbox"/> YU Serbia and Montenegro .....
<input checked="" type="checkbox"/> GE Georgia .....	<input checked="" type="checkbox"/> NI Nicaragua .....	<input checked="" type="checkbox"/> ZA South Africa .....
<input checked="" type="checkbox"/> GH Ghana .....	<input checked="" type="checkbox"/> NO Norway .....	<input checked="" type="checkbox"/> ZM Zambia .....
<input checked="" type="checkbox"/> GM Gambia .....	<input checked="" type="checkbox"/> NZ New Zealand .....	<input checked="" type="checkbox"/> ZW Zimbabwe .....

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Supplemental Box** *If the Supplemental Box is not used, this sheet should not be included in the request.*

**Box No. VI PRIORITY CLAIM**

The priority of the following earlier application(s) is hereby claimed:

	Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
			national application: country or Member of WTO	regional application: regional Office	international application receiving Office
item (1)	31 July 2002 (31/07/02)	60/400,076	US		
item (2)					
item (3)					
item (4)					
item (5)					

Further priority claims are indicated in the Supplemental Box.

The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (*only if the earlier application was filed with the Office which for the purposes of this international application is the receiving Office*) identified above as:

all items     item (1)     item (2)     item (3)     item (4)     item (5)     other, see  
Supplemental Box

\* *Where the earlier application is an ARIPO application, indicate at least one country party to the Paris Convention for the Protection of Industrial Property or one Member of the World Trade Organization for which that earlier application was filed (Rule 4.10(b)(ii)).*

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY**

**Choice of International Searching Authority (ISA)** (*if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used*):

ISA /US

**Request to use results of earlier search; reference to that search** (*if an earlier search has been carried out by or requested from the International Searching Authority*):

Date (day/month/year)

Number

Country (or regional Office)

**Box No. VIII DECLARATIONS**

The following declarations are contained in Boxes Nos. VIII (i) to (v) (*mark the applicable check-boxes below and indicate in the right column the number of each type of declaration*):

Number of  
declarations

- |                          |                    |                                                                                                                                      |   |
|--------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------|---|
| <input type="checkbox"/> | Box No. VIII (i)   | Declaration as to the identity of the inventor                                                                                       | : |
| <input type="checkbox"/> | Box No. VIII (ii)  | Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent             | : |
| <input type="checkbox"/> | Box No. VIII (iii) | Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application | : |
| <input type="checkbox"/> | Box No. VIII (iv)  | Declaration of inventorship (only for the purposes of the designation of the United States of America)                               | : |
| <input type="checkbox"/> | Box No. VIII (v)   | Declaration as to non-prejudicial disclosures or exceptions to lack of novelty                                                       | : |

Box No. IX CHECK LIST; LANGUAGE OF FILING		
This international application contains:		This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):
(a) in paper form, the following number of sheets:		Number of items
request (including declaration sheets)	: 5	1. <input checked="" type="checkbox"/> fee calculation sheet
description (excluding sequence listings and/or tables related thereto)	: 17	2. <input type="checkbox"/> original separate not signed power of attorney
claims	: 2	3. <input type="checkbox"/> original general power of attorney
abstract	: 1	4. <input checked="" type="checkbox"/> copy of general power of attorney; reference number, if any:
drawings	: _____	5. <input type="checkbox"/> statement explaining lack of signature
<b>Sub-total number of sheets</b>	<b>: 25</b>	6. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s):
sequence listings	:	7. <input type="checkbox"/> translation of international application into (language):
tables related thereto	:	8. <input type="checkbox"/> separate indications concerning deposited microorganisms or other biological material
(for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see (c) below)	_____	9. <input type="checkbox"/> sequence listing in computer readable form (indicate type and number of carriers)
<b>Total number of sheets</b>	<b>: 25</b>	(i.) <input type="checkbox"/> copy submitted for the purposes of international search under Rule 13ter only (and not as part of the international application)
(b) <input type="checkbox"/> only in computer readable form (Section 801(a)(i))		(ii.) <input type="checkbox"/> (only where check-box (b)(i) or (c)(i) is marked in left column) additional copies including, where applicable, the copy for the purposes of international search under Rule 13ter
(i) <input type="checkbox"/> sequence listings		(iii.) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the sequence listings part mentioned in left column
(ii) <input type="checkbox"/> tables related thereto		10. <input type="checkbox"/> tables in computer readable form related to sequence listings (indicate type and number of carriers)
(c) <input type="checkbox"/> also in computer readable form (Section 801(a)(ii))		(i) <input type="checkbox"/> copy submitted for the purposes of international search under Section 802 (b-quarter) only (and not as part of the international application)
(i) <input type="checkbox"/> sequence listings		(ii) <input type="checkbox"/> (only where check-box (b)(ii) or (c)(ii) is marked in left column) additional copies including where applicable, the copy for the purposes of international search under Section 802 (b-quarter)
(ii) <input type="checkbox"/> tables related thereto		(iii) <input type="checkbox"/> together with relevant statement as to the identity of the copy or copies with the tables mentioned in left column
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the		11. other (specify): <b>CHECK</b>
<input type="checkbox"/> sequence listings:		
<input type="checkbox"/> tables related thereto:		
(additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)		
Figure of the drawings which should accompany the abstract:	0	Language of filing of the international application: <b>English</b>
Box No. X SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE <i>Norman D. Hanson</i> Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).		
Reg. No. 30,946 (23.07.03)		

For receiving Office use only		
1. Date of actual receipt of the purported international application:	<b>UT20 Rec'd PCT/PTO 23 JUL 2003</b>	
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent):	<b>ISA / US</b>	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.
2. Drawings: <input type="checkbox"/> received; <input type="checkbox"/> not received;		

For International Bureau use only		
Date of receipt of the record copy by the International Bureau:		

**GENERAL POWER OF ATTORNEY**  
*(for several international applications filed under the Patent Cooperation Treaty)*  
 (PCT Rule 90.5)

The undersigned person(s) :

*(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

LUDWIG INSTITUTE FOR CANCER RESEARCH  
 605 Third Avenue  
 New York, New York 10158  
 US

hereby appoint(s) the following person as:

agent

common representative

**Name and address**

*(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

Norman D. Hanson  
 Fulbright & Jaworski LLP  
 666 Fifth Avenue  
 New York, New York 10103  
 US

to represent the undersigned before

all the competent International Authorities

the International Searching Authority only

the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the following Office

RO/US

as receiving Office

and to make or receive payments on behalf of the undersigned.

**Signature(s)** (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):

LUDWIG INSTITUTE FOR CANCER RESEARCH

BY

Lloyd J. Old  
 Lloyd J. Old  
 Chief-Executive Officer

Edward A. McDermott, Jr.  
 Edward A. McDermott, Jr.  
 President

Date:

July 8, 1996